APPENDIX 4. Eating Styles with Evidence of Benefit in Chronic Disease from RCTs or Systematic Review +/- Meta-analysis (Reference numbers for sources in this appendix are from the **Main** reference list for the module)

Eating Style	Prevention +/or Risk/Disease Management	Clinical Outcomes *(quality of supporting evidence in brackets)*
MEDITERRANEAN ***Guideline Inclusion:*** Canadian Cardiovascular Society CCS re: Dyslipidemia[4] and CVD primary prevention[5] Diabetes Canada (overlaid on low glycemic and balanced-carbohydrate intake)	Diabetes	Shown to ↓ incidence of T2D by 19–23%.[76] [High] Greater risk reduction with greater dietary adherence[77] [Moderate]. HR for new onset diabetes 0.60 (CI 95% 0.43–0.85) for Mediterranean diet (MedDiet) rich in EVOO* compared to controls on lower-fat diet, in population over age 55 at high CVD risk[77] [Moderate]. Improves both glycemic control (may ↓ HbA1c by 0.30–0.47%) and CV risk factors in patients with T2D[76,20] [High] and reduces glucose and insulin levels in non-diabetics[20] [High].
	Metabolic Syndrome (MetSy)	High adherence reduces risk factors for incidence of MetSy[78] [High]. Reversion of MetSy (HR 1.35 standard low fat diet vs. MedDiet with olive oil 95% CI 1.15–1.58, $p < 0.001$) in population at high CVD risk over age 55[79] [Moderate].
	Cardiovascular Disease (CVD) benefit	↓ incidence and mortality in healthy individuals[78] and ↓ incidence (RRR 40%) and mortality (RRR 34%) in those with high CVD risk[20,21**] [High], (**2018 re-analysed/re-published data from original 2011 study). A 2-point increase in MedDiet adherence (on an adherence scale of 1–18) resulted in a 10% ↓ in risk of CVD (RR 0.90)[80] [Moderate].
	Cognitive Health/Function	Mostly small effect sizes for improvements in some cognitive domains (e.g., executive function, memory, language)[81] [Moderate].Tiny improvements on MMSE scores with non-significant reduced incidence of MCI on those at high CVD risk [82] [Moderate]. Positive effects on cognitive health found particularly with high adherence and with EVOO/nut rich MedDiet but more research needed[9] [Moderate] Higher adherence associated with less cognitive decline but effect sizes were very small across studies[72] [Moderate].
	Alzheimer's disease/ dementia	Higher adherence associated with lower risk but very small effect sizes in AD and cognitive decline – evidence for benefit re: dementia inconsistent [72] [Moderate].
	Cancer	Highest adherence results in significantly lower risk: All cause cancer mortality RR 0.87. In survivors, highest adherence showed reduction in mortality but not cancer recurrence[83] Cancers: Breast RR 0.93 Prostate RR 0.96 Colorectal RR 0.83 Gastric RR 0.73 Liver, pancreatic RR 0.58, 0.48 respectively[83] [Moderate].
DASH ***Guideline Inclusion:*** CCS as above Heart and Stroke Foundation Hypertension Canada Diabetes Canada	Hypertension	Significant ↓ SBP ~ 7 mmHg (95% CI: 8.2–5.2) and DBP ~3.5 mmHg (95% CI: 4.29–2.79) with or without weight loss[89] [High]. Greater reductions with higher potassium/lower sodium intakes and when restricted energy prescribed[84] [High].
	CVD risk reduction	Adherence significantly improves multiple CV risk factors beyond simply ↓ in BP[85] [High]. High adherence (high DASH scores) = ↓ in CVD by 20% pooled relative risk (RR 0.80, 95% CI [0.77–0.84]) compared to low DASH score[86,87] [Moderate to High] with ~13% predicted reduction in 10-yr Framingham risk score for CV events.[85]
	Cognitive health, Alzheimer's disease	Mixed results–some positive effects on cognitive health found but more research needed[9] [Moderate]. Higher adherence associated with less cognitive decline and lower risk of AD but effect sizes very small[72] [Moderate].
	Diabetes	High DASH score = pooled relative risk ↓ for incident diabetes of 18–20% compared to low DASH score[86,88] [Moderate to High].
MIND	Cognitive Health, Alzheimer's Disease	Lower risk of AD as with MedDiet and DASH but the "strongest associations observed for the MIND diet"[72] [Moderate]. Positive effects on cognitive health found but more research needed[9] [Moderate].
PORTFOLIO ***Guideline Inclusion***: CCS as above Diabetes Canada	Cardiovascular disease risk	Four dietary elements of Portfolio overlaid on NCEP-Step II** (≤ 30% total fat, < 7 saturated fat, < 200 mg/day cholesterol); ↓ LDL-C, TC, TG, non-HDL-C and apoB [High]; improvements in HDL-C, SBP, DBP, CRP, with ↓ estimated 10-yr risk CHD by 13%[24] [Moderate]. Health Canada recognises the health claims of the individual components of the Portfolio Diet (such as soy protein, dietary fibre, plant sterols) for lowering cholesterol and/or reducing cardiovascular disease risk.[89-91]
VEGETARIAN & VEGAN ***Guideline Inclusion***: CCS as above Diabetes Canada	Ischemic heart disease (IHD) and cancer	Vegetarian– reduction in IHD by 25% (RR 0.75, 95% CI 0.68 to 0.82) and ↓ incidence cancer (RR 0.92, 95% CI [0.87-0.98]) [High] compared to omnivore diet; but not significant for overall mortality or other cardiovascular and cerebrovascular diseases.[82] Vegan style- promising but limited amount of evidence to date for ↓ incidence of cancer[82] [High].

*EVOO = extra virgin olive oil; **National Cholesterol Education Program Step II dietary plan
HR = hazard ratio: CI = confidence interval; RR = relative risk; RRR = elative risk reduction

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